

REMARKS

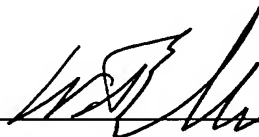
Applicant respectfully requests that the foregoing amendments be made prior to examinations of the present application. No new matter has been added.

Respectfully submitted,

Date

6/21/02

By



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VERSION WITH MARKINGS TO SHOW CHANGES MADE**Marked up replacement paragraphs:**

Pages 2-3, bridging paragraph:

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a schematic diagram of a card-shaped data carrier in accordance with one embodiment of the present invention.

Fig 2 is a graph of the absorption wavelength spectrum of the layers before laser irradiation.

Fig. 3 is a schematic diagram of a triplet of colors in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Figure 1 shows a detail from a card-shaped data carrier which has three layers (1, 2, 3), each having different absorption spectra before the laser irradiation. These three layers (1, 2, 3) are preferably located on a white substrate layer (4). In addition, above the three layers (1, 2, 3) whose absorption is to be changed under the influence of the laser radiation, there is a covering layer (5) which is transparent in the visible wavelength range and in the range of the laser radiation used.

Marked up rewritten claims:

1. (Amended) A card-shaped data carrier, comprising at least one layer [(1, 2, 3)] into which visually readable information is introduced in the form of a change in the optical property on the basis of a material change effected irreversibly by a laser beam, characterized in that the absorption capacity of this layer [(1, 2, 3)] for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation.

2. (Amended) A card-shaped data carrier as claimed in claim 1, [characterized in that] wherein the layer [(1, 2, 3)] has colored pigments which, under the influence of laser radiation with the wavelength ($\lambda \pm \Delta\lambda$), at least partly lose their absorption capacity for the wavelength ($\lambda_2 \pm \Delta\lambda_2$).

3. (Amended) The card-shaped data carrier as claimed in claim 1 [or 2], [characterized in that] comprising

- [the same has] two or more layers [(1, 2, 3)], [which] with each [have] having a different absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$), and
- the absorption capacity of at least one layer [(1, 2, 3)] for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation.

4. (Amended) The card-shaped data carrier as claimed in [one of the preceding claims, characterized in that] claim 1 comprising

- [the same has] at least two layers each of [(1, 2, 3)] which has [have] a respectively different absorption capacity for [at least two] a different [wavelengths] wavelength ($\lambda_1 \pm \Delta\lambda_1$, $\lambda_2 \pm \Delta\lambda_2$, $\lambda_3 \pm \Delta\lambda_3$),
- the absorption capacity of a first layer [(1)] for [the] a first wavelength ($\lambda_1 \pm \Delta\lambda_1$) being at least partly reduced under the influence of the laser radiation of the first wavelength ($\lambda_1 \pm \Delta\lambda_1$), and
- the absorption capacity of a second layer [(2)] for [the] a second wavelength ($\lambda_2 \pm \Delta\lambda_2$) being at least partly reduced under the influence of the laser radiation of the second wavelength ($\lambda_2 \pm \Delta\lambda_2$).

5. (Amended) The card-shaped data carrier as claimed in claim 1, [one of the preceding claims, characterized in that] wherein at least one of the layers [(1, 2, 3)] is at least partly transparent to visible light (400 nm to 800 nm).

6. (Amended) The card-shaped data carrier as claimed in claim 1, [one of the preceding claims, characterized in that] wherein the layers [(1, 2, 3)] whose absorption capacity is reduced under the influence of the laser radiation are arranged on a white substrate layer [(4)].

7. (Amended) The card-shaped data carrier as claimed in claim 1, [one of the preceding claims, characterized in that] wherein a covering layer [(5)] that is transparent to visible light is arranged over the layers [(1, 2, 3)] whose absorption capacity is reduced under the influence of the laser radiation.

8. (Amended) The card-shaped data carrier as claimed in claim 2, [one of claims 2 to 7, characterized in that] wherein the layers [(1, 2, 3)] are plastic films laminated one over another, in which the colored pigments are contained.

9. (Amended) The card-shaped data carrier as claimed in claim 2, [one of claims 2 to 7, characterized in that] wherein the layers [(1, 2, 3)] are varnish layers arranged one above another, in which the colored pigments are contained.

10. (Amended) A method for applying information to card-shaped data carriers, the card-shaped data carrier having at least one layer [(1, 2, 3)] into which visually readable information is introduced in the form of a change in [the] an optical property on the basis of a material change effected irreversibly by a laser beam, [characterized by] comprising

- the provision of a card-shaped data carrier which has at least one layer [(1, 2, 3)] whose absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation, and

- acting on this layer [(1, 2, 3)] of the card-shaped data carrier with the laser radiation, in order to reduce the absorption capacity of this layer for the wavelength ($\lambda \pm \Delta\lambda$).

11. (Amended) The method as claimed in claim 10, [characterized by] wherein

- the provision of a card-shaped data carrier which has two or more layers [(1, 2, 3)] which have a respectively different absorption capacity for at least one wavelength ($\lambda \pm \Delta\lambda$), and the absorption capacity of at least one layer [(1, 2, 3)] for at least one wavelength ($\lambda \pm \Delta\lambda$) is at least partly reduced as a result of the laser radiation,

- acting on this one layer [(1, 2, 3)] of the card-shaped data carrier with the laser radiation, in order to reduce the absorption capacity of this layer for the wavelength ($\lambda \pm \Delta\lambda$).

12. (Amended) The method as claimed in [either of claims] claim 10 [and 11, characterized by] comprising

- the provision of a card-shaped data carrier which has at least a first layer and a second layer [two layers (1, 2, 3) which] each of which [have] has a respectively different absorption capacity for [at least two] a different [wavelengths] wavelength ($\lambda_1 \pm \Delta\lambda_1, \lambda_2 \pm \Delta\lambda_2, \lambda_3 \pm \Delta\lambda_3$),
- the absorption capacity of the first layer [(1)] for [the] a first wavelength ($\lambda_1 \pm \Delta\lambda_1$) being at least partly reduced under the influence of laser radiation of the first wavelength ($\lambda_1 \pm \Delta\lambda_1$),
- the absorption capacity of the second layer [(2)] for [the] a second wavelength ($\lambda_2 \pm \Delta\lambda_2$) being at least partly reduced under the influence of the laser radiation of the second wavelength ($\lambda_2 \pm \Delta\lambda_2$),
- acting on the first layer [(1)] of the card body with laser radiation of the wavelength ($\lambda_1 \pm \Delta\lambda_1$), in order to reduce the absorption capacity of this layer for the wavelength ($\lambda_1 \pm \Delta\lambda_1$), and
- acting on the second layer [(1)] of the card body with laser radiation of the second wavelength ($\lambda_2 \pm \Delta\lambda_2$), in order to reduce the absorption capacity of this layer for the second wavelength ($\lambda_2 \pm \Delta\lambda_2$).